

## ANALYSIS OF CAR, NPL, LDR AND BOPO EFFECTS ON ROA(CASE STUDY ON GO PUBLIC GENERAL BANKS LISTED IN INDONESIA STOCK EXCHANGE

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### ABSTRACT

The growth and development of a country is very dependent on its financial institutions. Financial institutions, especially banking, are the backbone in driving the wheels of the economy. Banking functions as a financial intermediary, that is, as an intermediary between those who have excess funds and those who have funds. One technique in the analysis of financial statements is the analysis of financial ratios. Financial ratio analysis is a company analysis instrument that explains various changes in financial conditions or operating achievements in the past and helps illustrate the pattern of changes to then show the risks and opportunities inherent in the company concerned. The soundness of a bank is an evaluation of a condition of financial statements at a bank in a certain period in accordance with Bank Indonesia Standards.

This study aims to examine the effect of Capital Adequacy Ratio (CAR), Non Performing Loans (NPL), Loan to Deposit Ratio (LDR) and BOPO on Return on Assets (ROA). The data in this study are secondary data, namely banking companies on the Indonesia Stock Exchange. The number of samples used was 10 Commercial Banks listed on the Indonesia Stock Exchange for the period 2007-2016 taken through purposive sampling. The analytical method used in this study is to use multiple regression analysis which had previously been tested classic assumptions first.

The results showed that simultaneously the independent variable (X) significantly influenced Return on Assets (Y). While partially the variables LDR (X3) and BOPO (X4) significantly influence ROA (Y). While Partially Variable CAR (X1) and Variable NPL (X2) have no significant effect on ROA (Y).

Keywords: CAR, NPL, LDR, BOPO

## Preliminary

Banks must continue to maintain public trust so that people no longer hesitate in depositing funds in the bank. More and more people who save money in the bank will increase bank lending to the public. This is very important

considering the source of bank income comes from lending activities in the form of interest income. In addition, the increasing lending by banks can encourage the growth and development of the national economy because it facilitates various parties in carrying out their activities, especially for companies, government and private agencies, and the community in order to meet their funding needs.

Predictions of a company's financial performance are generally carried out by internal parties (management) and external parties of the company that have a relationship with the company concerned, such as: investors, creditors, and the government. Munawir (2007: 8) states that the parties are investing capital requires information about the extent of the smooth activity and profitability of the company, the potential for dividends, because with this information shareholders can decide to retain their shares, sell, or even add them.

Munawir (2007: 7) also states that companies need financial accounting information other than as a basis for planning, controlling, and making financial, operating and investment decisions also needed to determine the company's profitability and profit distribution. One technique in financial statement analysis is ratio analysis finance (Kasmir, 2008: 281). Financial ratio analysis is a company analysis instrument that explains various changes in operating conditions or achievements in the past and helps illustrate the pattern of changes to then show the risks and opportunities inherent in the company concerned. Financial ratios are basically arranged by combining the numbers in the financial statements. Financial ratio analysis can help business people, the government, and other users of financial statements in assessing the company's financial condition, banking companies are no exception (Sudarni, 2005)

The soundness of a bank is an evaluation of a condition of financial statements at a bank in a certain period and time in accordance with Bank Indonesia Standards (Riyadi, 2006: 175). To assess the health of a bank can be carved with a variety of health assessment methods will affect the ability of banks and customer loyalty to the bank concerned.

To assess banking financial performance, five aspects of valuation are generally used, namely capital, assets, management, earnings and liquidity which are commonly called CAMEL.

Four of the five aspects, namely capital, assets, earnings and liquidity are assessed using financial ratios (Kasmir, 2010: 275). Capital aspects (capital) can be assessed through the Capital Adequacy Ratio (CAR),

Asset aspects are valued by Non Performing Loans (NPL), earnings aspects include Return On Assets (ROA) and Operational Costs to Operating Income (BOPO), while liquidity aspects are assessed by Loan to Deposit Ratio (LDR). Profitability is an important indicator to measure the performance of a bank. Return On Assets (ROA) focuses on the company's ability to earn earnings in the company's operations by utilizing its assets. So in this study ROA is used as a measure of banking performance. The main objective of bank operations is to achieve maximum profitability. Profitability is the ability of banks to generate or earn profits effectively and efficiently. The greater the ROA of a bank, the greater the level of profit achieved by the bank and the better the bank's position in terms of asset use (Dendawijaya, 2009: 119).

## **Theoretical basis**

### **Understanding Bank**

Understanding banks according to Law Number 10 of 1998, banks are business entities that collect funds from the public in the form of deposits and distribute them to the public in the form of credit and or other forms in order to improve the lives of many people. From the description above it can be explained that the bank is a company

engaged in the financial sector, meaning that banking business is always related to financial matters. So, it can be concluded that the banking business includes three main activities, namely: raising funds, channeling funds and providing other bank services.

### **Financial Ratios**

Financial ratio analysis Is a method of analysis to determine the relationship of certain items in the balance sheet or income statement individually or in combination of the two reports (Munawir,2007).

By using ratio analysis it is possible to determine the level of performance of a bank. According to Kasmir (2010) these financial ratios can be grouped into:

#### **1. Liquidity Ratio**

Liquidity ratio analysis is an analysis conducted on the ability of banks to meet their short-term obligations or obligations that are past due. Some liquidity ratios that are often used in assessing the performance of a bank are Quick Ratio, Investing Policy Ratio, Banking Ratio, Assets to Loan Ratio, Investment Portfolio Ratio, Loan to Deposit Ratio (LDR), Investment Risk Ratio, Liquidity Risk Ratio, Credit Risk Ratio, Deposit Risk Ratio. (Kasmir, 2010: 281).

## 2. Solvency Ratio

Solvency ratio analysis is an analysis used to measure the ability of banks to meet their long-term obligations or the ability of banks to fulfill obligations in the event of bank liquidation. In addition, this ratio is used to determine the ratio between the volume (amount) of funds obtained from various debts (short and long term) and sources of cash outside the bank's own model with the volume of the fund's investment in various types of assets owned by a bank. Some of the ratios are Capital Adequacy Ratio, Primary Ratio, Risk assets Ratio, Secondary Risk Ratio, Capital Ratio, Capital Risk.(Cashmere, 2010: 282)

## 3. Profitability Ratio

Rentability ratio analysis is a tool to analyze or measure the level of business efficiency and profitability achieved by the bank concerned. In addition, ratios in this category can also be used to measure the soundness of banks. In the calculation of profitability ratios, a reciprocal relationship between posts is usually sought contained in the income statement with items on the bank's balance sheet in order to obtain various indications that are useful in measuring the level of efficiency and profitability of the bank concerned. Analysis of the profitability ratio of a bank is Return on Assets, Return on Equity,

## Methodology

### Operational Definitions and Measurement variables

Operational definition is to define the concept that will be operated on the basis of a study in a research in the form of variables, both based on theory and empirical data with the aim to explain and explain some variables, both dependent variables (Dependent Variables) and independent variables (Independent Variables).

Several definitions of measurement of operational research variables are based on theory and empirical data, where existing variables indicate that there are functional relationships that define dependent variables specifically on independent variables. In this study the variables used are distinguished jasi two namely:

#### Dependent Variable (Variable Y)

Is a variable that needs to be explained (explained variable). Variable dependent in this study is the profitability aspect which is measured by ROA.

#### Independent Variable (Variable X)

Is a variable that explains or influences other variables (explanatory variables). The independent variables in this study are the Capital Adequacy Ratio (X1), Non Performing Loans (X2),

The operational definitions of each variable used in this research, both for the dependent variable and the independent variable include:

1. Return On Assets (Y) ROA is expressed as a percentage (%).
2. Capital Adequacy ratio (X1) CAR CAR is expressed as a percentage (%).
3. Non Performing Loans (X2) NPL NPLs are expressed as a percentage (%).
4. Loan to Deposit Ratio (X3) of income through loans extended. (RP)

BOPO (X4) BOPO means more efficient banking in operating.

#### Population and Sample Determination Techniques

##### Population

Population according to Sugiyono (2008: 115) is a generalization area consisting of objects or subjects that have certain qualities and characteristics. Defined by researchers to be studied and then conclusions drawn.

The population is also the number of all objects or individuals who have certain characteristics, clear and complete that will be examined (Hasan, 2008) The population in this study are banking companies listed on the Indonesia Stock Exchange (IDX) within a period of time The population in this study were 10 banks that had the highest assets

## Research Results and Discussion

### Discussion

Based on the results of the analysis, the researcher can conclude that:

Based on simultaneous hypothesis testing, the influence of CAR, NPL, LDR and BOPO obtained F count of 14,293 > F table of 2.47 then  $H_0$  is rejected and  $H_1$  is accepted, which means that overall the independent variables namely CAR (X1), NPL (X2), LDR (X3) and BOPO (X4) simultaneously and significantly affect the dependent variable, namely Return On Assets (Y).

Based on partial hypothesis testing, the effect of Capital Adequacy Ratio (X1) on Return on Assets (Y) obtained has t count of 0.455 < t

$H_0$  is accepted and  $H_1$  is rejected, which means that the Capital Adequacy Ratio (CAR) has no significant and positive effects on Return on Assets (ROA).

The insignificance of the CAR variable to ROA is likely due to the capital conditions of commercial banks that went public in the ten year period of observation (a certain period) which is very good, where the average CAR is 16.71% (far above the minimum CAR standard of banks which is 8%). This condition explains that banks rely on loans as a source of income and do not use all their potential capital to increase bank profitability (such as the development of products and services outside of loans that can increase fee base income).

This causes CAR not to be a factor that significantly influences bank profitability (Esther, Djumahir and Kusuma, 2013). With the high CAR value that has been exceeded the limits set by Bank Indonesia, it is proven that the potential capital at the Public Go Bank is not used to increase profits for the company so that CAR does not affect

The profitability of commercial banks goes public. This is reinforced by the results of research from Endra, Catur Wahyu (2013), a study titled "Analysis of the effects of CAR, NIM, LDR, NPL and BOPO on the suitability of case studies at Public Banks that Go Public on the Indonesia Stock Exchange Period 2002-2010" which states that the Capital Adequacy Ratio (CAR) variable has no significant effect on the Return on Assets (ROA) variable. So in this case CAR does not affect ROA on Commercial Banks listing on the Stock Exchange Indonesia.

Based on partial hypothesis testing, the effect of Non Performing Loans ( $X_2$ ) on Return on Assets ( $Y$ ) obtained t-test results of  $-1,189 < t_{table}$  of 1,985 then  $H_0$  is accepted and  $H_1$  is rejected, meaning that partially there is no significant and negative influence between Non Performing Loans (NPL) and Return On Assets (ROA). No NPL has any effect on ROA, meaning that the level of the ratio does not affect the level of profit the bank receives. NPL is related to the risk of financing problems faced by banks. The NPL is not significant to ROA because there are sources of profit other than interest such as relatively high fee-based income that can cover the occurrence of problem loans. In addition to non-interest income, non-performing loans can also be covered by the Allowance for Impairment Losses (CKPN). This causes the NPL to be a factor that has a significant effect on profitability at commercial banks that have gone public (Nur Aini, 2013). This is reinforced by the results of research by Anggita Puji Santoso (2012), a study titled "The Effect of CAR, NPL and LDR on ROA (Case Study on Commercial Banks Listing on the Indonesia Stock Exchange in 2007)" which states that the Non Performing Loan variable (NPL) has a negative and not significant effect on Return On Assets (ROA). So in this case NPL does not affect ROA at the Bank

General Listing on the Indonesia Stock Exchange.

Based on partial hypothesis testing, the influence of Loan to Deposit Ratio ( $X_3$ ) on Return on Assets ( $Y$ ) obtained t-test results of  $2,948 > t_{table}$  1,985 then  $H_0$  is rejected and  $H_1$  is accepted, meaning that the Loan to Deposit Ratio (LDR) has a significant effect and positive on Return On Assets (ROA), this is because when the LDR gets bigger it happens that the volume of lending to banks will increase. The greater the volume of lending will cause an increase in

bank profitability because banks gain income through credit interest, so that the LDR has a significant positive effect on ROA.

This is reinforced by the results of research from Catur Wahyu Endra (2013), a study titled "Analysis of the effects of CAR, NIM, LDR, NPL and BOPO on the case study fitability on Commercial Banks that Go Public on the Indonesia Stock Exchange Period 2002-2010 "states that the Loan to Deposit Ratio (LDR) variable has a positive and significant effect on Return on Assets (ROA). So in this case the LDR Affects ROA on Commercial Banks listing on the Indon Stock Exchange

## CONCLUSION

From the results of the study showed the variable CAR, NPL. LDR and BOPO together have a significant effect on ROA. Related, any changes that occur in the independent variables namely CAR, NPL, LDR and BOPO simultaneously or jointly will affect the ROA at Public Banks Go Public in Indonesia.

By looking at the results of the significant test of the Independent Variable on the Return on Asset (Y) Value, it can be seen that the Loan to Deposit Ratio (X3) and BOPO (X4) variables are variables that are significantly related to Return on Assets (Y) while the Capital Adequacy Ratio variable (X1) and Non Performing Loans (X2) no impact on Return On Assets (Y)

## Suggestion

Based on the conclusions above, the following are some suggestions for consideration as follows:

1. Banking companies on the Indonesia Stock Exchange need to return the value of the Capital Adequacy Ratio (CAR) which is above the minimum limit set by Bank Indonesia of 8%. A CAR that is too high causes idle funds (idle funds) to increase and not increase to generate profits for banking companies.

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